

44. (New) The composition of claim 40, wherein the construct includes a plasmid.
45. (New) The composition of claim 40, wherein the nucleic acid construct further comprises a regulatory element operatively linked to nucleic acid encoding the self-antigen or the cytokine.
46. (New) The composition of claim 45, wherein the regulatory element is a promoter selected from the group consisting of Mouse Mammary Tumor Virus (MMTV) promoter, Human Immunodeficiency Virus Long Terminal Repeat (HIV LTR) promoter, Moloney virus, ALV, Cytomegalovirus (CMV) promoter, human Actin, human Myosin, RSV, human Hemoglobin, human muscle creatine and EBV.
47. (New) A method for treating a condition associated with autoimmune diabetes in a subject in need thereof comprising administering to the subject by peripheral administration an immunomodulatory effective amount of one or more plasmids expressing a nucleic acid construct encoding an antigen selected from insulin B chain, GAD, and a combination thereof and a cytokine selected from IL-4, IL-10, and a combination thereof, in a pharmaceutically acceptable carrier, wherein transient expression of the self-antigen and the cytokine in the subject treats the condition associated with the autoimmune diabetes.
48. (New) The method of claim 47, wherein the subject is a human.
49. (New) The method of claim 47, wherein the self-antigen is insulin B-chain.
50. (New) The method of claim 47, wherein the self-antigen is GAD.
51. (New) The method of claim 47, wherein the nucleic acid construct further comprises a regulatory element operatively linked to nucleic acid encoding the self-antigen or the cytokine.

52. (New) The method of claim 51, wherein the regulatory element is a promoter selected from the group consisting of Mouse Mammary Tumor Virus (MMTV) promoter, Human Immunodeficiency Virus Long Terminal Repeat (HIV LTR) promoter, Moloney virus, ALV, Cytomegalovirus (CMV) promoter, human Actin, human Myosin, RSV, human Hemoglobin, human muscle creatine and EBV.

53. (New) The method of claim 47, wherein the treatment comprises controlling the blood sugar of the subject.

54. (New) A method for treating autoimmune diabetes in a subject in need thereof comprising administering to the subject by peripheral administration an immunomodulatory effective amount of one or more plasmids expressing a nucleic acid construct encoding an antigen selected from insulin B chain, GAD, and a combination thereof and a cytokine selected from IL-4, IL-10, and a combination thereof, in a pharmaceutically acceptable carrier, wherein transient expression of the self-antigen and the cytokine in the subject treats the condition associated with the autoimmune diabetes.

55. (New) The method of claim 54, wherein the subject is a human.

56. (New) The method of claim 54, wherein the self-antigen is insulin B-chain.

57. (New) The method of claim 54, wherein the self-antigen is GAD.

58. (New) The method of claim 54, wherein the nucleic acid construct further comprises a regulatory element operatively linked to nucleic acid encoding the self-antigen or the cytokine.

59. (New) The method of claim 58, wherein the regulatory element is a promoter selected from the group consisting of Mouse Mammary Tumor Virus (MMTV) promoter, Human Immunodeficiency Virus Long Terminal Repeat (HIV LTR) promoter, Moloney virus, ALV, Cytomegalovirus (CMV) promoter, human Actin, human Myosin, RSV, human Hemoglobin, human muscle creatine and EBV.

60. (New) The method of claim 54, wherein the treatment comprises controlling the blood sugar of the subject.

61. (New) The method of claim 54, wherein the treatment comprises induction of T-cells reactive to the self-antigen.

62. (New) A method for treating an autoimmune process associated with autoimmune diabetes in a subject in need thereof comprising administering to the subject by peripheral administration an immunomodulatory effective amount of one or more plasmids expressing a nucleic acid construct encoding an antigen selected from insulin B chain, GAD, and a combination thereof and a cytokine selected from IL-4, IL-10, and a combination thereof, in a pharmaceutically acceptable carrier, wherein transient expression of the self-antigen and the cytokine in the subject treats the autoimmune process associated with the autoimmune diabetes.

63. (New) The method of claim 62, wherein the subject is a human.

64. (New) The method of claim 62, wherein the self-antigen is insulin B-chain.

65. (New) The method of claim 62, wherein the self-antigen is GAD.

66. (New) The method of claim 62, wherein the nucleic acid construct further comprises a regulatory element operatively linked to nucleic acid encoding the self-antigen or the cytokine.

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67. (New) The method of claim 66, wherein the regulatory element is a promoter selected from the group consisting of Mouse Mammary Tumor Virus (MMTV) promoter, Human Immunodeficiency Virus Long Terminal Repeat (HIV LTR) promoter, Moloney virus, ALV, Cytomegalovirus (CMV) promoter, human Actin, human Myosin, RSV, human Hemoglobin, human muscle creatine and EBV.

68. (New) The method of claim 62, wherein the treatment comprises induction of T-cells reactive to the self-antigen.

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